3rd Grade Pacing Module 1 *with Suggested Modifications* **Key**

Optional Lesson

Extension Lesson

Remedial Lesson



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| --- | --- | --- | --- | --- |
| Standards | Topic and Objectives | | |  |
| **3.OA.1**  3.OA.3 | A | Multiplication and the Meaning of the Factors  1 Day Math Task: [Party Time](http://www.insidemathematics.org/assets/problems-of-the-month/party%20time.pdf)  Lesson 1: Understand *equal groups of* as multiplication.  Lesson 2: Relate multiplication to the array model.  **Combine Lesson 1 & 2**  Lesson 3: Interpret the meaning of factors—the size of the group or the number of groups. | | **Days: 3**  **Combine Lessons 1 & 2.** Students have used arrays and equal groups in 2nd grade.  [Party Time](http://www.insidemathematics.org/assets/problems-of-the-month/party%20time.pdf), to be used as a formative assessment for Topic A. |
| By the end of Topic A, your students should be able to:   * Use repeated addition to represent a number of equal groups * Represent multiplication with models such as arrays and equal groups * Understand what factors are and differentiate between the size of groups and the number of groups within a given context   Fluency: Review addition and subtraction facts with regrouping , Multiplication facts 2,5,10  [FWPS TFL Snapshot Assessments](http://www.fwps.org/tfl/math-ccss/3rd-grade-math-ccss/) **Use 3.OA.1**  **SBAC Released Item:** | | | | |
| **3.OA.2**  **3.OA.6**  3.OA.3  3.OA.4 | **B** | Division as an Unknown Factor Problem  1 Day Math Task: [Markers in Boxes](https://www.illustrativemathematics.org/content-standards/3/OA/A/2/tasks/1540)  Lesson 4: Understand the meaning of the unknown as the size of the group in division.  Lesson 5: Understand the meaning of the unknown as the number of groups in division.  Lesson 6: Interpret the unknown in division using the array model. | | **Days: 3**  [Markers in Boxes](https://www.illustrativemathematics.org/content-standards/3/OA/A/2/tasks/1540) as formative assessment for this topic.  **Extension Lesson 6**, for this time of year this is extension. |
| By the end of Topic B, your students should be able to:   * Understands division as an unknown factor * Relate the meaning of the unknown factor to either the number or the size of groups * Understand the connection between multiplication and division     [FWPS TFL Snapshot Assessments](http://www.fwps.org/tfl/math-ccss/3rd-grade-math-ccss/) **Use 3.OA.3**  **SBAC Released Item:** | | | | |
| **3.OA.1**  **3.OA.5**  3.OA.3  3.OA.4 | C | Analyze Arrays to Multiply Using Units of 2 and 3  Combine Lesson 7 & 8  Lessons 7–8: Demonstrate the commutativity of multiplication and practice related facts by skip-counting objects in array models.  Lesson 9: Find related multiplication facts by adding and subtracting equal groups in array models.  Lesson 10: Model the distributive property with arrays to decompose units as a strategy to multiply. | | **Days: 3** |
| By the end of Topic C, your students should be able to:   * Use the array model and familiar skip counting strategies to solidify understanding of multiplication * Become fluent with arithmetic patterns to “add” and “subtract” groups to solve multiplication and division problems * Develop understanding of the break apart strategy (distributive property)   [FWPS TFL Snapshot Assessments](http://www.fwps.org/tfl/math-ccss/3rd-grade-math-ccss/) **Use 3.OA.4 and 3.OA.5** | | | | |
| *3 Days for Remediation, Enrichment, Mid-Module Assessment*  **Suggested Tasks:**  [Isabella's Garden](http://schools.nyc.gov/NR/rdonlyres/067DB512-9685-43CD-9ACE-246CBD0B2A89/0/NYCDOE_G3_Math_IsabellasGarden_FINAL.pdf) : This task introduces and develops concepts of multiplication and division. Students experiment and practice with a variety of materials to gain fluency in multiplication facts. They learn to recognize multiplication and division situations, interpret products and quotients, and write and solve word problems.  **Fluency Activities** (multiplication & division) – (2,5,10) per the FWPS progression document – recall within 5 seconds  *For all ongoing fluency activities in EngageNY, see “Fluency Card Overview” on e-binder.*  [**Engage NY Module 1 Word Document Assessments**](https://www.engageny.org/resource/grade-3-mathematics-module-1) | | | | |
| **3.OA.2**  **3.OA.4**  **3.OA.6**  **3.OA.7**  3.OA.3  3.OA.8 | D | Division Using Units of 2 and 3  Lesson 11: Model division as the unknown factor in multiplication using arrays and tape diagrams.  Lesson 12: Interpret the quotient as the number of groups or the number of objects in each group using units of 2.  Lesson 13: Interpret the quotient as the number of groups or the number of objects in each group using units of 3. | | **Days: 2**  **Remedial Lesson 12:** Factors of 2 are reviewed from 2nd grade (skip counting and arrays). If needed, this can be combined in Lesson 13. |
| By the end of Topic D, your students should be able to:   * Determine the relationship between multiplication and division * Recognize the differentiation between the size of groups and the number of groups within a given context * Fluently multiply and divide with factors of 2,5,10   [FWPS TFL Snapshot Assessments](http://www.fwps.org/tfl/math-ccss/3rd-grade-math-ccss/) **Use 3.OA.2, 3.OA.6, and 3.OA.7** | | | | |
| **3.OA.5**  **3.OA.7**  3.OA.1  3.OA.2  3.OA.3  3.OA.4  3.OA.6 | E | Multiplication and Division Using Units of 4    Lesson 14: Skip-count objects in models to build fluency with multiplication facts using units of 4.  Lesson 15: Relate arrays to tape diagrams to model the commutative property of multiplication.  Lesson 16: Use the distributive property as a strategy to find related multiplication facts.  **1 Day Lesson:** [**Making the Hard Facts easy**](https://www.georgiastandards.org/Georgia-Standards/Frameworks/3rd-Math-Unit-2.pdf)  Lesson 17: Model the relationship between multiplication and division. | **Days: 3**  [**Making the Hard Facts Easy**](https://www.georgiastandards.org/Georgia-Standards/Frameworks/3rd-Math-Unit-2.pdf)Used to apply the distributive property (pg. 138) | |
| By the end of Topic E, your students should be able to:   * Analyze the relationship between multiplication and division * Model the relationship between multiplication and division * Understand skip counting, distributive property, commutative property, arrays, number bonds, and tape diagrams   [FWPS TFL Snapshot Assessments](http://www.fwps.org/tfl/math-ccss/3rd-grade-math-ccss/) | | | | |
| **3.OA.3**  **3.OA.5**  **3.OA.7**  **3.OA.8**  3.OA.1  3.OA.2  3.OA.4  3.OA.6 | F | Distributive Property and Problem Solving Using Units of 2–5 and 10  Lessons 18: Apply the distributive property to decompose units.  Lesson 19: Apply the distributive property to decompose units.  Lesson 20: Solve two-step word problems involving multiplication and division and assess the reasonableness of answers.  Lesson 21: Solve two-step word problems involving all four operations and assess the reasonableness of answers. | | **Days: 3** |
| By the end of Topic F, your students should be able to:   * Understand skip counting, distributive property, commutative property, arrays, number bonds, and tape diagrams * Analyze arithmetic patterns that emerge to compose and decompose numbers | | | | |
| *2 Days for Re-Assessment, Remediation and Enrichment*  [**Engage NY Module 1 Word Document Assessments**](https://www.engageny.org/resource/grade-3-mathematics-module-1) | | | | |
| ***Total Instructional Days: 22*** | | | | |

Links Used:

Module Assessments: <https://www.engageny.org/resource/grade-3-mathematics-module-1>

“Markers in Boxes” Task: <https://www.illustrativemathematics.org/content-standards/3/OA/A/2/tasks/1540>

“Isabella’s Garden” Task: <http://schools.nyc.gov/NR/rdonlyres/067DB512-9685-43CD-9ACE-246CBD0B2A89/0/NYCDOE_G3_Math_IsabellasGarden_FINAL.pdf>

“Making the Hard Facts Easy” Lesson (pg. 138): <https://www.georgiastandards.org/Georgia-Standards/Frameworks/3rd-Math-Unit-2.pdf>

New or Recently Introduced Terms

* Array[[1]](#footnote-1) (arrangement of objects in rows and columns)
* Commutative property/commutative (e.g., rotate a rectangular array 90 degrees to demonstrate that factors in a multiplication sentence can switch places)
* Equal groups (with reference to multiplication and division; one factor is the number of objects in a group and the other is a multiplier that indicates the number of groups)
* Distribute (with reference to the distributive property, e.g., in 12 × 3 = (10 × 3) + (2 × 3) the 3 is the multiplier for each part of the decomposition)
* Divide/division (partitioning a total into equal groups to show how many equal groups add up to a specific number, e.g., 15 ÷ 5 = 3)
* Factors (numbers that are multiplied to obtain a product)
* Multiplication/multiply (an operation showing how many times a number is added to itself, e.g., 5 × 3 =15)
* Number of groups (factor in a multiplication problem that refers to the total equal groups)
* Parentheses (symbols ( ) used around an expression or numbers within an equation)
* Quotient (the answer when one number is divided by another)
* Rotate (turn, used with reference to turning arrays 90 degrees)
* Row/column[[2]](#footnote-2) (in reference to rectangular arrays)
* Size of groups (factor in a multiplication problem that refers to how many in a group)
* Unit (one segment of a partitioned tape diagram)
* Unknown (the missing factor or quantity in multiplication or division)

Familiar Terms and Symbols[[3]](#footnote-3)

* Add 1 unit, subtract 1 unit (add or subtract a single unit of two, ten, etc.)
* Expression (see expanded description in box above)
* Number bond (illustrates part–part–whole relationship, shown at right)
* Ones, twos, threes, etc. (units of one, two, or three)
* Repeated addition (adding equal groups together, e.g., 2 + 2 + 2 + 2)
* Tape diagram (a method for modeling problems)
* Value (how much)

1. Originally introduced in Grade 2, Module 6 but treated as new vocabulary in this module. [↑](#footnote-ref-1)
2. Originally introduced in Grade 2, Module 6 but treated as new vocabulary in this module. [↑](#footnote-ref-2)
3. These are terms and symbols students have used or seen previously. [↑](#footnote-ref-3)